Complete Summary

GUIDELINE TITLE

Low back pain or sciatica in the primary care setting.

BIBLIOGRAPHIC SOURCE(S)

Veterans Health Administration, Department of Defense. Clinical practice guideline for the management of low back pain or sciatica in the primary care setting. Washington (DC): Department of Veterans Affairs (U.S.); 1999 May. Various p. [216 references]

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Low back pain and sciatica

GUIDELINE CATEGORY

Diagnosis
Evaluation
Management
Screening
Treatment

CLINICAL SPECIALTY

Internal Medicine
Neurology
Orthopedic Surgery
Physical Medicine and Rehabilitation
Radiology

Rheumatology
Sports Medicine

INTENDED USERS

Advanced Practice Nurses
Health Care Providers
Nurses
Physical Therapists
Physician Assistants
Physicians

GUIDELINE OBJECTIVE(S)

- To present primary care providers, primary care managers, and specialists with evidence-based guidelines on the management of persons with low back pain or sciatica in the primary care setting for the purpose of improving clinical outcomes.
- To present guidelines flexible enough to accommodate local policies or procedures, including those regarding staffing patterns and referral to or consultation with other health care providers.

TARGET POPULATION

Veterans and Department of Defense beneficiaries with low back pain or sciatica in primary care settings

INTERVENTIONS AND PRACTICES CONSIDERED

Screening/Assessment

1. Medical and surgical history (such as, history of presenting signs and symptoms, past medical and surgical history)
2. Physical examination:
    - Inspection of posture, body habitus, stance and gait
    - Regional back examination with range of motion testing of spine, hips and lower extremities
    - Specific tests: straight leg raise and crossed straight leg raised
    - Neurological screening: motor strength, muscle wasting, sensation, deep tendon reflexes, and specific reflexes, e.g., Babinski and clonus
3. Assessment for any â œred flagsâ that may suggest a potentially serious underlying condition, such as cancer, infection, cauda equina syndrome, fractures, abdominal aortic aneurysm, or significant herniated nucleus pulposus
4. Assessment for other medical conditions that may present as back pain
5. Diagnostic tests (as appropriate):
    - Lumbosacral Spine x-rays
    - Magnetic resonance imaging (MRI) or computed tomography (CT) myelography
    - Electromyography
    - Bone scan

- Laboratory tests (to screen for nonspecific medical diseases which may present as low back pain). Examples of lab tests include complete blood count, erythrocyte sedimentation rate, urinalysis, chemistry, serum immuno-electrophoresis

6. Work-related ergonomic evaluation for the gradual return to activity
7. Comprehensive re-evaluation including psychosocial assessment and physical examination
8. Additional tests to identify patients who may benefit from surgical interventions, including:
    - Lumbar spine x-rays
    - Magnetic resonance imaging (MRI) or computerized tomographic (CT) myelography
    - Electrophysiological tests

Screening Instruments

1. Psychosocial screening and assessment tools:
    - Waddell's Signs
    - Fear Avoidance Behavior Questionnaire
    - The Modified Work APGAR Score
    - DSM IV Screening Checklist for Depression
    - Zung's Self-Rating Depression Scale
    - CAGE Screening Checklist for Alcoholism
2. Pain assessment instruments:
    - Pain Drawing
    - Visual Analog Scale
3. Evaluation of non-physical factors:
    - Roland and Morris Disability Questionnaire
    - Oswestry Low Back Pain Disability Questionnaire
    - Modified Version of the Oswestry Disability Questionnaire Used in the AAOS Lumbar Cluster

Management/Treatment

1. Action/follow-up for any â œred flagsâ identified: testing and referral
2. Education (e.g. expectations for recovery; symptom control, activity modifications, follow-up)
3. Patient activity modifications
4. Progressive range of motion and exercises (aerobic exercise and specific muscle conditioning exercises)
5. Symptom control medication:
    - Analgesics: acetaminophen, nonsteroidal anti-inflammatory agents (such as aspirin, ibuprofen, naproxen, ketoprofen). opioid analgesics
    - Muscle relaxants (such as cyclobenzaprine, methocarbamol, carisoprodol, chlorzoxazone, diazepam, orphenadrine, metaxalone)
      Note: Oral steroids are considered but not recommended
      Note: Injection therapy (such as epidural steroid injections). Other types of injection therapy were considered but not recommended, such as trigger point injection, ligamentous and sclerosant injections, facet joint injections)
6. Manipulation and techniques to increase joint and soft tissue range of motion and decrease pain

7. Assisted management (e.g., physical therapist or other trained spinal professional):
    - Heat or cold to the back at home
    - Shoe insoles and lifts
    - Note: lumbar corsets and support belts, transcutaneous electrical nerve stimulation, traction, biofeedback, and acupuncture were all considered but not recommended
8. Bedrest
9. Follow up (visit or phone call) in 1 to 3 weeks as indicated
10. Refer/manage as appropriate

MAJOR OUTCOMES CONSIDERED

- Symptom control
- Rate of recovery
- Functional status

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Literature searches were conducted using MEDLINE, NIH, etc. Additional peer review literature was obtained from committee members. Guidelines published by professional societies were also used.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Strength of Evidence Grading:

A. Strong research-based evidence (multiple relevant and high-quality scientific studies).
B. Moderate research-based evidence (one relevant, high-quality scientific study or multiple adequate scientific studies*).
C. Limited research-based evidence (at least one adequate scientific study* in patients with low back pain).
D. Panel interpretation of information that did not meet inclusion criteria as research-based evidence.

* Meets minimal formal criteria for scientific methodology and relevance to population and specific method addressed in guideline statement.

METHODS USED TO ANALYZE THE EVIDENCE

Systematic Review with Evidence Tables

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not applicable

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

The guideline recommendations are the product of many months of consensus building among knowledgeable individuals. The Working Group Panel of Experts included contributions from internists, primary care physicians, osteopaths, nurse practitioners, physician assistants, physical therapists, pharmacologists, psychiatrists, psychologists, social workers, nurses, chaplains, administrators, program specialists in geriatrics, external peer review physicians, and expert consultants in the field of guideline and algorithm development.

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Not applicable

COST ANALYSIS

A formal cost analysis was not performed and published cost analyses were not reviewed.

METHOD OF GUIDELINE VALIDATION

Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

Not applicable

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The recommendations for the management of low back pain or sciatica in the primary care setting are organized into 1 major algorithm. The algorithm, and the objectives and annotations that accompany it, are presented below.

Screening Algorithm

Acute Phase Algorithm

Chronic Phase Algorithm

A. Patient with Low Back Pain/Sciatica Age Greater than 17 Years

Objective

To exclude patients less than 17 years of age with low back pain (LBP) or sciatica.

Annotation

Low back pain in children is distinct from low back pain in adults. Low back pain in children has a definitive etiology in 50 to 60 percent of cases and represents a distinct differential diagnosis. This algorithm is designed for the evaluation of low back pain in skeletally mature individuals.

B. History and Physical Examination

Objective

To assist the health care provider (HCP) in diagnosing and managing patients presenting with low back pain.

Annotation

Medical and Surgical History

The history taking process promotes positive rapport between the patient and clinician. It also helps the clinician to gain insight into patient concerns and expectations since a well taken medical history will uncover issues (psychological and/or socioeconomic) that may affect the patient's response to treatment. The medical history should ascertain any previous history of low back pain and the nature of presenting signs and symptoms:

1. Mechanism of onset-insidious or specific trauma.
2. Location of symptoms-percentage of low back or leg.
3. Duration-acute, less than six weeks or chronic, more than six weeks.
4. Character or description of pain-mechanical, radicular, claudicant, non-specific.
5. Nature of the limitations imposed by the condition.
6. Neurological history-distribution, bowel and bladder symptoms, weakness, saddle numbness.
7. Constitutional symptoms-fever, weight loss, night pain.

8. Previous spinal surgery with persistent pain.
9. History of drug seeking behavior or IV drug abuse.
10. History of cigarette smoking.
11. Past medical and surgical history.
12. History of immunosuppression-history of cancer, steroids, HIV.
13. Nature of the physical demands of work, if applicable.

Physical Examination

Physical examination is guided by the medical history and includes:

14. Careful observation of the patient, including inspection of posture, body habitus, stance and gait.
15. Regional back examination with range of motion (ROM) testing of spine, hips and lower extremities.
16. Specific tests: straight leg raise (SLR) and crossed straight leg raised.
17. Neurological screening: motor strength, muscle wasting, sensation, deep tendon reflexes, and specific reflexes, e.g., Babinski and clonus.
18. A medical history suggestive of nonspinal pathology mimicking a back problem may warrant examination of pulses, abdomen, pelvis or other areas.

See Appendix B, "Neurological Evaluation;" Appendix C, "Psychosocial Screening and Assessment Tools;" and Appendix D, "Pain Assessment Instruments" in the original guideline document.

C. Does the Patient Have Any "Red Flags"?

Objective

To effectively screen all patients presenting with low back pain for potentially serious underlying conditions.

Annotation

The history and physical examination should specifically identify clinical clues, "red flags," (see the table below) that may suggest a serious underlying condition that warrants the clinician's urgent attention. These factors include:

1. Major trauma.
2. Age greater than 50.
3. Persistent fever.
4. History of cancer.
5. Metabolic disorder.
6. Major muscle weakness.
7. Bladder or bowel dysfunction.
8. Saddle anesthesia.
9. Decrease sphincter tone.
10. Unrelenting night pain.

"Red flags" for specific conditions

Condition	"Red Flag"	Action
Cancer	o History of cancer o Unexplained weight loss o Age greater than 50 o Failure to improve with therapy o Pain for more than 4 to 6 weeks o Night/rest pain	If malignant disease of the spine is suspected, imaging is indicated and complete blood count, erythrocyte sedimentation rate, should be considered. Identification of possible primary malignancy should be investigated, e.g., prostate specific antigen, mammogram, urine protein electrophoresis/serum protein electrophoresis/IPEP
Infection	o Fever o History of intravenous drug use o Recent bacterial infection: Urinary track infection, skin, pneumonia o Immunocompromised states (steroid, organ transplants, diabetes, HIV) o Rest pain	If infection in the spine is suspected, magnetic resonance imaging, complete blood count, erythrocyte sedimentation rate and/or U/A are indicated
Cauda equina syndrome	o Urinary retention or incontinence o Saddle anesthesia o Anal sphincter tone decrease/fecal incontinence o Bilateral lower extremity weakness/numbness or progressive neurological deficit	Request immediate surgical consultation
Fracture	o Use of corticosteroids o Age greater than 70 or history of osteoporosis o Recent significant trauma	Appropriate imaging and surgical consultation
Acute abdominal aneurysm	o Abdominal pulsating mass o Other atherosclerotic vascular disease	Appropriate imaging (ultrasound) and surgical consultation

	o Resting or night pain o Age greater than 60	
Significant herniated nucleus pulposus (HNP)	o Major muscle weakness	Appropriate imaging and surgical consultation

Adapted from Kaiser Permanente, 1996.

D. Initiate Immediate and Appropriate Action

Objective

To assist the primary care manager (PCM)/primary care provider (PCP) in organizing appropriate testing and referral of those patients with "red flags".

Annotation

See Annotation C and the table titled "Red flags," above, for specific conditions.

E. Does Patient Have Another Medical Condition Presenting as Back Pain?

Objective

To identify patients with conditions that masquerade as simple low back pain.

Annotation

The differential diagnosis of low back pain is extensive. The medical history and physical examination may alert the clinician to nonspinal pathology and masqueraders of simple low back pain.

0. Visceral organs can have pain that is referred to the back. The clinician is reminded to include in the differential diagnosis all thoraco-abdomino-pelvic viscera, e.g., kidney stones, pancreatitis, endometriosis, etc.
1. Psychosocial pathology may complicate the diagnosis and management of low back pain.

See Table 4 of the original guideline document, "Conditions That Masquerade as Musculoskeletal Low Back Pain."

F. Consider Initiation of One or More of the Following Conservative Treatment Options

Objective

To institute conservative measures designed to effectively treat low back pain and to identify early on those individuals with moderate to severe symptoms that may require assisted management.

Annotation

0. Education

   Patients with acute low back pain should be given accurate information about the following:

   a. Expectations for both rapid recovery and recurrence of symptoms based on natural history of low back symptoms.
   b. Safe and effective methods of symptom control and reasonable activity modifications.
   c. Best means of limiting recurrent low back pain problems through risk factor identification, e.g., proper lifting techniques, treatment of obesity, and smoking cessation.
   d. Lack of need for special investigations unless red flags are present.
   e. Effectiveness and risks of commonly available diagnostic tests and further treatment measures to be considered should symptoms persist.
   f. Patients should be instructed to follow-up in one to three weeks as needed. Specific indications for follow-up include:
      - worsening neurological symptoms or clinical deterioration
      - failure to improve with initial conservative treatment
      - bowel or bladder dysfunction warrants emergent re-evaluation.

1. Activity Modification
   a. Patients with acute low back pain may be more comfortable if they temporarily limit or avoid specific activities known to increase mechanical stress on the spine, especially prolonged unsupported sitting, heavy lifting, and bending or twisting the back while lifting.
   b. Activity recommendations for the employed patient with acute low back symptoms need to consider the patient's age and general health, and the physical demands of required job tasks.

2. Progressive Range of Motion (ROM) and Exercise

   Conservative treatment options can be initiated for the care of patients with low back pain/sciatica and patients with a diagnosis contributing to acute low back pain/sciatica. This annotation specifically addresses the role of progressive range of motion and exercise.

   a. Aerobic exercise. Avoiding debilitation. Until the patient returns to normal activity, aerobic (endurance) conditioning exercise such as walking, stationary biking, swimming, and even light jogging may be recommended to help avoid debilitation due to

inactivity. Patients should be informed that exercises may increase symptoms slightly at first. If intolerable, some exercise alteration usually is helpful.

b. Therapeutic exercise. Specific muscle conditioning. Specific trunk muscle conditioning exercises are helpful, especially those for back extensor muscles in patients with persistent symptoms. However, if performed during the first two weeks of symptoms these exercises may exacerbate symptoms. Clinicians are advised to establish exercise quota targets for patients rather than telling them to stop if pain occurs.

3. Symptom Control: Medications

Symptom control methods focus initially on providing comfort to keep the patient as active as possible while awaiting spontaneous recovery. Later in treatment, the symptom control method promotes the activation needed to overcome a specific activity intolerance. The methods traditionally used include oral medications, such as acetaminophen and nonsteroidal anti-inflammatory drugs (NSAIDs), and injection treatments.

Proving the efficacy of these methods to relieve acute low back symptoms is difficult due to the rapid rate of spontaneous recovery. The use of symptom control methods known to have less risk of harm than methods with proven efficacy may thus be warranted if such methods are inexpensive and allow an individual to remain active or build activity tolerance through exercise. Data is summarized in Table 5 in the original guideline document, "Symptom Control Methods."

a. Analgesia

Acetaminophen and Nonsteroidal Anti-Inflammatory Drugs:

Acetaminophen is reasonably safe and is acceptable for treating patients with acute low back pain.

Nonsteroidal anti-inflammatory drugs (NSAID)s including aspirin, are acceptable for treating patients with acute low back pain.

Muscle Relaxants:

1. Muscle relaxants are an option in the treatment of patients with acute low back pain. While probably more effective than placebo, muscle relaxants have not been shown to be more effective than nonsteroidal anti-inflammatory drugs.

2. No additional benefit is gained by using muscle relaxants in combination with nonsteroidal anti-inflammatory drugs over using nonsteroidal anti-inflammatory drugs alone.

Opioid Analgesics:

3. When used only for a time-limited course, opioid analgesics are an option in managing patients with acute low back pain. The decision to use opioids should be guided by their potential for complications.

4. Opioids appear to be no more effective in relieving low back symptoms than safer analgesics, such as acetaminophen or aspirin or other nonsteroidal anti-inflammatory drugs.

Oral Steroids:

5. Oral steroids are not recommended for the treatment of acute low back pain.

b. Injection Therapy

0. Trigger point injections are invasive and not recommended in the treatment of patients with acute low back pain.
1. Ligamentous and sclerosant injections are invasive and not recommended in the treatment of patients with acute low back pain.
2. Facet joint injections are invasive and not recommended for use in the treatment of patients with acute low back pain.
3. There is no evidence to support the use of invasive epidural injections of steroids, local anesthetics, and/or opioids as a treatment for acute low back pain without radiculopathy.
4. Epidural steroid injections are an option for short-term relief of radicular pain after failure of conservative treatment and as a means of avoiding surgery.

4. Manipulation

Manipulation consists of techniques to increase joint and soft tissue range of motion and decrease pain. Osteopathic physicians, specifically trained and certified allopathic physicians, and physical therapists practice it. Manipulation also may be practiced by licensed chiropractors where available.

a. When used within the first month of symptoms, manipulation can be helpful for patients with acute low back pain without radiculopathy.
b. When findings suggest progressive or severe neurological deficits, an appropriate diagnostic assessment to rule out serious neurological conditions is indicated before beginning manipulation therapy. Selected patients with a nonprogressive radiculopathy may benefit from a trial of manipulation.
c. Evidence is insufficient to recommend manipulation for all patients with radiculopathy.
d. A trial of manipulation in patients with symptoms longer than a month probably is safe, but its efficacy is still being researched.

5. Assisted Management

In certain cases where patients' symptoms are moderate to severe, or when duty obligations require a rapid return to full functional status,

assisted management may be indicated. Assisted management typically uses physical therapists or other trained spinal professionals. Interventions typically include education, activity modification, progressive range of motion and exercise, and manipulative therapy. Additional interventions employed typically include:

a. Physical Agents and Modalities

   Physical agents and modalities used in the treatment of acute low back pain have not been proven to demonstrate benefit or justify their cost. As an option, patients may be taught self-application of heat or cold to the back at home.

b. Transcutaneous Electrical Nerve Stimulation

   Evidence is insufficient to recommend transcutaneous electrical nerve stimulation TENS in the treatment of patients with acute low back pain.

c. Shoe Insoles and Shoe Lifts

   Shoe insoles may be effective for patients with acute low back pain who stand for prolonged time periods. Given the low cost and low potential for harm, shoe insoles and lifts are a treatment option.

d. Lumbar Corsets and Back Belts

   Lumbar corsets and support belts have not been proven beneficial in treating patients with acute low back pain.

e. Traction

   Evidence is insufficient to recommend traction in the treatment of patients with acute low back pain.

f. Biofeedback

   Biofeedback is not recommended in treating of patients with acute low back pain.

g. Acupuncture

   Invasive needle acupuncture and other dry needling techniques are not recommended for treating patients with acute low back pain.

6. Bed Rest
   a. Limited bed rest, if recommended at all, should be for two days or less.

b. The majority of low back pain patients will not require bed rest. Bed rest for two to four days may be an option for patients with severe initial symptoms of primarily leg pain. Sometimes no bed rest may be appropriate to prevent stiffness and deconditioning.
c. Prolonged bed rest for more than seven days may lead to debilitation and is not recommended for treating acute low back pain.

G. Follow up (Phone Call or Visit) in 1 to 3 Weeks as Indicated

Objective

To identify patients with worsening or new neurological symptoms.

Annotation

If the patient reports getting worse, then follow up sooner than four weeks is appropriate. This may be due to simple patient anxiety. Any worsening of neurological symptoms merits re-evaluation (e.g., worsening of muscle strength, or bowel or bladder incontinence merits emergent re-evaluation.

H. Refer/Manage as Appropriate

Objective

To identify and manage patients who are now exhibiting new "red flags" or clinical deterioration.

Annotation

0. If the patient develops onset of new red flags then evaluate as indicated in Annotations C and D, above.
1. Re-evaluation of other conditions that masquerade as low back pain should be considered (See Annotation E, above).
2. In the absence of new red flags, consider/modify symptom control methods and assisted management (See Annotation F, above).

I. Modify Symptom Control Methods. Gradual Return to Activity. Consider: Back Pain Prevention Program and Work-related Ergonomics Evaluation

Objective

To return the patient to a fully functional status and minimize future recurrence.

Annotation

0. Tapering off medications and increasing activity should be individualized according to each patient's functional status.

1. In the workplace, back schools with work site-specific education may be effective adjuncts to individual education efforts by the clinician in treating patients with acute low back problem.
2. The efficacy of back schools in nonoccupational settings has yet to be demonstrated.
3. Work-related ergonomics may contribute to the prevention of injuries (primary prevention) to the rehabilitation and management of trauma and health disorders (secondary prevention) and to the post-rehabilitation stage (tertiary prevention).

J. Continue/Modify Conservative Treatment Up to 4 to 6 Weeks from Initial Evaluation. Consider/Modify Assisted Management or Work-Related Ergonomics Evaluation

Objective

To determine whether, due to the patient's response, the initial course of treatment requires modification.

Annotation

0. If the patient has not improved after the initial attempt at conservative treatment, changes in nonsteroidal anti-inflammatory drugs, additional activity modification or assisted management may help improve patient's symptoms.
1. The provider should consider a work-related ergonomic evaluation.
2. The patient should be reassured and conservative treatment continued for the first four to six weeks.

K. Comprehensive Reevaluation Including Psychosocial Assessment and Physical Examination

Objective

To identify early those patients who have significant psychological distress and are at greater risk for chronicity.

Annotation

0. Re-evaluate patients who have failed an initial conservative therapy according to boxes two through eight (in the algorithm) with management as appropriate.
1. Social, economic, and psychological factors are more important than physical factors in affecting the symptoms, response to treatment, and long-term outcomes of patients with chronic low back problems. Such nonphysical factors may affect clinical outcomes for patients with acute low back symptoms (See Appendix E in the original guideline document).
2. A heightened awareness, among clinicians, to the way such factors may affect a patient's response to symptoms and treatment is warranted.
3. Identified psychological and social factors should be managed as appropriate.

L. Order AP and Lateral Lumbosacral Spine X-rays, Magnetic Resonance Imaging or Computed Tomographic Myelogram. Consider Electrodiagnostic Studies

Objective

To identify patients who may benefit from surgical intervention.

Annotation

When a patient has a neurological deficit, a positive tension sign (straight leg raising) and a correlative imaging study, the clinical correlation/accuracy is 95 percent. Magnetic resonance imaging probably is the most accurate modality. Computed tomographic myelography is next best. Electromyography is helpful to identify extraspinal neural compression.

Plain X-rays

0. Plain x-rays are not recommended for routine evaluation of patients with acute low back problems within the first month of symptoms unless a red flag is noted on clinical examination (such as specified below).
1. Plain x-rays of the lumbar spine are recommended for ruling out fractures in patients with acute low back problems when any of the following red flags are present: recent significant trauma (any age), recent mild trauma (patient over the age 50), and patient over age 70 or has a history of prolonged steroid use or osteoporosis.

Magnetic Resonance Imaging or Computed Tomographic-Myelography

Routine spinal imaging tests generally are not recommended in the first month of symptoms except in the presence of red flags for serious conditions. After one month of symptoms, an imaging test is acceptable when surgery is being considered, or to rule out a suspected serious condition.

Electrophysiological Tests (Electromyography and Sensory Evoked Potentials)

2. Needle electromyography and H-reflex tests of the lower limb may be useful in assessing questionable nerve root dysfunction in patients with leg symptoms lasting longer than six weeks, regardless of whether patients also have back pain.
3. If the diagnosis of radiculopathy is obvious and specific on clinical examination, electrophysiologic testing is not recommended.

M. Continue Current Treatment and Consider Further Tests and Consultation. Assess for Disposition

Objective

To determine treatment of patients who are not improving and who do not require surgical intervention.

Annotation

A non-surgical back specialist may be necessary to help manage this subset of patients without apparent improvement.

Indications for specialty referral may include:

. Physiatrist/Physical Medicine and Rehabilitation
    1. Chronic back pain less than six weeks.
    2. Chronic sciatica less than six weeks.
    3. Chronic pain syndrome.
    4. Recurrent back pain.

a. Neurology (limited special indications)
    0. Chronic sciatica for more than six weeks.
    1. Atypical chronic leg pain (negative straight leg raise).
    2. New or progressive neuromotor deficit.

b. Occupational Medicine (limited special indications)
    0. Difficult Workers' Compensation situations.
    1. Disability/impairment ratings.
    2. Return to work issues.

c. Rheumatology (limited special indications)
    0. Rule out inflammatory arthropathy.
    1. Rule out fibrositis/fibromyalgia.
    2. Rule out metabolic bone disease (e.g., osteoporosis).

d. Primary Care Sports Medicine Specialist
    0. Chronic back pain for more than six weeks.
    1. Chronic sciatica for more than six weeks.
    2. Recurrent back pain.

N. Order AP, Lateral, and Lumbosacral Spine X-rays. Consider Bone Scan, Complete Blood Count, Erythrocyte Sedimentation Rate, UA, Chemistry, Serum Protein Electrophoresis, IPEP, and Urine Protein Electrophoresis

Objective

To identify the appropriate tests for patients with persistent low back pain.

Annotation

Chronic conditions may have not caused symptoms in the past, but persist beyond four to six weeks of conservative treatment that can be diagnosed with X-rays, bone scans, or laboratory findings.

0. Plain x-rays are not recommended for routine evaluation of patients with acute low back problems within the first month of symptoms unless a red flag is noted on clinical examination (See the table above titled "Red Flags" for specific conditions).
1. The routine use of oblique views on plain lumbar x-rays is not recommended for adults due to increase radiation exposure.
2. Oblique x-rays are warranted in those cases where the medical history, physical examination, or AP and lateral x-rays, suggest a spondylolisthesis or spondylolysis.

3. Laboratory tests such as complete blood count, erythrocyte sedimentation rate, UA, CHEM, serum protein electrophoresis, IPEP, and urine protein electrophoresis can be useful to screen for nonspecific medical diseases (especially infection and tumor) which may present as low back pain.
4. A bone scan can detect physiologic reactions to suspected spinal tumor, infection, or occult fracture.

O. Continue Treatment as Appropriate to Optimize Function. Consider Consultation. Assess for Disposition

Objective

To optimize functional status.

Annotation

0. If there are no abnormal findings, it is important to start the patient on a program that will enable him or her to resume usual previous activities.
1. The management of the patient without structural pathology needs to be directed towards a physical-conditioning program. This program is designed with exercises to progressively build activity tolerances and overcome individual limitations due to back symptoms.
2. Attention may also be directed towards behavior modification, activity specific education, or an organized multidisciplinary back rehabilitation program.
3. A nonsurgical back specialist may be necessary to help manage this subset of patients without apparent improvement.

CLINICAL ALGORITHM(S)

Algorithms are provided for recognition and management of low back pain in the primary care setting, including:

- Screening Algorithm
- Acute Phase Algorithm
- Chronic Phase Algorithm

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The annotations which accompany the algorithms in the guideline document indicate whether each recommendation is based on scientific data or expert opinion. Where existing literature is ambiguous or conflicting, and where scientific data are lacking on an issue, recommendations are based on the expert panel's opinion and clinical experience.

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Appropriate management and increased quality of care of persons with low back pain or sciatica in the primary care setting.
- Improved combat readiness of the Department of Defense forces.

POTENTIAL HARMS

- Side effects of muscle relaxants, including drowsiness have been reported in up to 30 percent of patients taking muscle relaxants.
- Side effects of opioid analgesics, including poor patient tolerance and risks of drowsiness, decreased reaction time, clouded judgment, and potential misuse/dependence have been reported in up to 35 percent of patients using opioid analgesics.
- Reported complications of epidural injections include epidural abscess, headache, fever and inadvertent spinal tap. Several cases of ventilatory depression have been reported. Epidural injections are considered an expensive treatment.

QUALIFYING STATEMENTS

QUALIFYING STATEMENTS

- The reader is reminded that this document is intended as a guideline and accordingly, should not supersede the clinical judgment of the health care provider.
- The clinical algorithms (shown in the Major Recommendations field) diagram the guideline in a step-by-step decision tree presenting a linear approach to the recognition and management of low back pain; however, clinical practice often requires non-linear and concurrent processes, e.g., acute low back pain may be the initial presenting complaint, but a coexisting condition like hypertension bordering on a potential stroke may require attention first. Similarly, given the high rates of co-occurring psychiatric and other medical conditions among enrollees served by the Veterans Health Administration/Department of Defense, treatment for other conditions may need to precede the low back pain screening and treatment.

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better

IOM DOMAIN

Effectiveness

IDENTIFYING INFORMATION AND AVAILABILITY

BIBLIOGRAPHIC SOURCE(S)

Veterans Health Administration, Department of Defense. Clinical practice guideline for the management of low back pain or sciatica in the primary care setting. Washington (DC): Department of Veterans Affairs (U.S.); 1999 May. Various p. [216 references]

ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

1999 May

GUIDELINE DEVELOPER(S)

Department of Defense - Federal Government Agency [U.S.]
Veterans Health Administration - Federal Government Agency [U.S.]

SOURCE(S) OF FUNDING

United States Government

GUIDELINE COMMITTEE

Management of Low Back Pain or Sciatica in the Primary Care Setting Working Group

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FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

An update is not in progress at this time.

GUIDELINE AVAILABILITY

Electronic copies: Available from the Department of Veterans Affairs Web site.

Print copies: Department of Veterans Affairs, Veterans Health Administration, Office of Quality and Performance (10Q) 810 Vermont Ave. NW, Washington, DC 20420.

AVAILABILITY OF COMPANION DOCUMENTS

The following are available:

- Provider Key-Point Reference Cards on the management of low back pain (May 1999)
- Summary Algorithms on the diagnosis and management of low back pain (June 1999)

Print copies: Available from the Department of Veterans Affairs, Veterans Health Administration (VHA), Office of Quality and Performance (10Q), 810 Vermont Ave. NW, Washington, DC 20420.

PATIENT RESOURCES

The following patient information is available:

- Managing low back pain. A patient pamphlet (1999 Jan).

Print copies: Available from the Department of Veterans Affairs, Veterans Health Administration (VHA), Office of Quality and Performance (10Q), 810 Vermont Ave. NW, Washington, DC 20420.

NGC STATUS

This summary was completed by ECRI on May 1, 2001. The information was verified by the guideline developer as of November 1, 2001.

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